REFERENCE: 61

IDEM. Affidavit of Mark Jaworski, Lane Street Ground Water Contamination Project Information. December 3, 2008.

I, Mark Jaworski, contest that the following information regarding the Site investigation activities at Lane Street Ground Water Contamination located in Elkhart, Indiana is a true and accurate history of events. The events and information listed in the attached Lane Street Ground Water Contamination Project Information narrative all occurred in my presence.

Mark Jaworski

12-3-08

Mark Jaworski
Enviromental Manager
Site Investigation Section
Indiana Department of Environmental Management

Date

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

Lane Street Ground Water Contamination Project Information

Elevated Level of TCE in Residential Wells
Lane Street
Elkhart, Indiana
April 2008

BACKGROUND:

In October 2006, an Environmental Site Assessment (ESA) was conducted for the Geocel facility located at 53280 Marina Road in Elkhart, Indiana. The ESA concluded that a subsurface investigation should be completed in the vicinity of a former Tetrachloroethlyene (PCE) underground storage tank (UST) that was located on site. PCE is an industrial solvent. The UST was removed in 1986. Subsequent investigations in this area indicated that a release of industrial solvents had occurred to the ground water under the facility. The contamination was found to have migrated off site southward into a residential area. All residents in this area obtain drinking water from individual private wells. The water in many of the residential wells was found to contain elevated levels of the solvent. Geocel supplied carbon filters to the residents to purify their drinking water supply.

Geocel alerted the Indiana Department of Environmental Management (IDEM) and the Elkhart County Health Department about the ground water contamination and applied to IDEM's Voluntary Remediation Program (VRP). Geocel was accepted in the program on July 12, 2007. Geocel's investigation concluded that the ground water contamination was confined to an area bordered by Kershner Street to the west, the Geocel facility to the north, County Road 113 to the east, and Crestwood Street to the south.

LANE STREET GROUND WATER CONTAMINATION PROJECT:

On August 22, 2007, the Site Investigation Section of the Indiana Department of Environmental Management (IDEM) received a call from the Elkhart County Health Department (ECHD). The ECHD stated that a resident located on Lane Street had submitted a sample of their drinking water to the Water Quality Laboratory at Heidelberg College in Tiffin, Ohio. Lane Street is the next street west of Kershner Street. The analysis of the water revealed highly elevated levels of trichloroethylene (TCE), another type of industrial solvent.

Lane Street Multi-Phased Site Assessment:

- August 23 and August 31, 2007:
  IDEM sampled all residential wells on and around Lane Street. Additional wells were found to be contaminated with elevated levels of TCE and IDEM supplied bottled water to those residents. U.S. EPA, in a cooperative effort with IDEM's investigation, provided filtration systems to those homes found with contaminated drinking water.

  Geocel is not claiming responsibility for the contamination on Lane Street because: They claim that
  1) the ground water contamination lies outside of their area of influence, and
  2) the ground water plume appears to be another plume consisting of other contaminants not detected on Kershner Street.

- April 14 through April 17, 2008:
  IDEM expanded its investigation. The objective of the investigation was twofold:
  1) to confirm that the ground water contamination was still present in the Lane Street area and
  2) to determine the source of the ground water contamination. The investigation was funded under the Site Investigation Program's cooperative agreement with U.S. EPA.

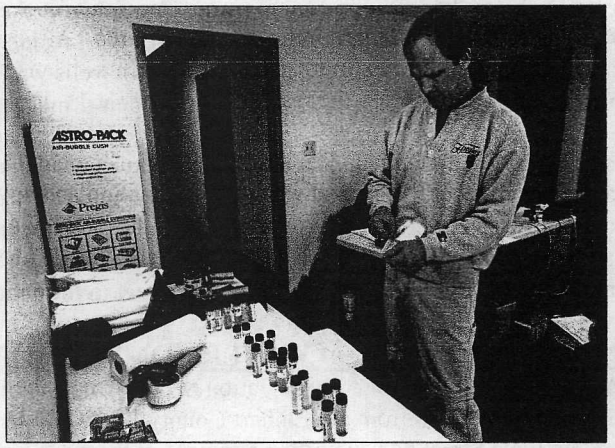
IDEM staff members Sandra Roberts and Dan Chesterson conduct FORMS II Lite activities.

Site Investigation Planning:

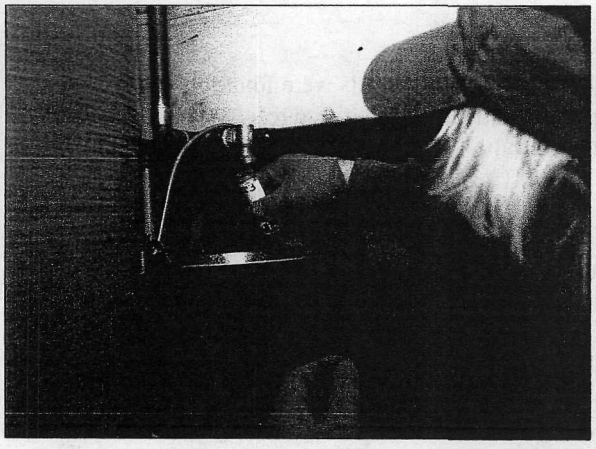
Prior to the investigation, an extensive amount of planning had to be performed. A work plan had to be completed and approved by the U.S. EPA. Several onsite visits were made to the facilities that were being investigated to obtain permission to collect environmental samples from their properties. Underground utilities had to be located and marked. Consultants for the Geocel facility were notified to obtain information of the surrounding area that was needed for our investigation. Some residents were contacted to obtain permission to collect samples of their drinking water.

SI staff obtained U.S. EPA contract laboratory sample numbers and clerical staff prepared the labels with the appropriate numbers. SI staff obtained all necessary field gear, laptop computers, coolers, field sheets, placards, buckets, tubs, cameras, pens, markers, maps, bottles, 40 ml vials, encore samplers, empty drums, two way radios, GPS instruments, etc.

After discussing the investigation with IDEM's assigned (chief) geologist, it was deemed necessary that advanced field screenings were necessary. It was determined that both qualitative (fast return time) and quantitative (longer return time) analyses were necessary. SI staff made arrangements to utilize both IDEM's (qualitative) and U.S. EPA's (quantitative) mobile laboratories. The onsite analysis would help the geologist determine the next sample location to define the source area.



IDEM staff member Doug Fisher prepares samples for U.S. EPA CLP shipment.



IDEM staff member Billy Giles collects a groundwater sample of known contamination from the basement of a residential home.

Staff also agreed that since time was limited, many samples could be required to determine the source area(s). Therefore, SI staff made arrangements to utilize both IDEM's and U.S. EPA's Geoprobes. It was necessary for the assigned geologist to employ the services of other geologists and samplers to obtain and describe the samples from both rigs. The chief geologist was responsible for determining all subsequent Geoprobe sampling locations after obtaining sample analysis from the mobile laboratories. IDEM's Geoprobe was also used to install three piezometers to determine the groundwater flow direction of the immediate area.

To determine that ground water contamination was still present in residential wells, staff sampled private residential/industrial drinking water wells. Engineering staff were also utilized to survey the elevations of the piezometers.

With the help of management, the SI program solicited the assistance of many OLQ staff to conduct this type of investigation. SI staff coordinated and arranged all field staff's schedules to insure that a sufficient number of staff were present during the investigation. A pre-meeting with all staff was conducted prior to the sampling event, to work out the logistics involved in conducting this investigation and to discuss each staff's roles and concerns.

IDEM staff members Mark Jaworski, Ken McDaniel and Kevin Spindler discuss Geoprobe sample locations.

Since the investigation had to be completed in a 5-day period, it was necessary to secure a base location near the site where staff would be able to operate. SI staff discussed the details of the sampling event with the Elkhart County Health Department and found a suitable nearby building that would meet the project's needs. Due to the large nature of the investigation, Elkhart County staff volunteered one of their staff to assist IDEM staff.

U.S. EPA staff members operate their Geoprobe prior to taking a soil sample.

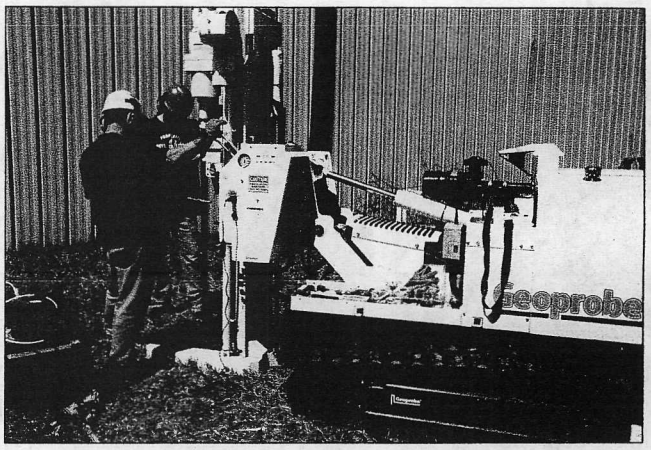
The Elkhart Health Department staff also arranged for storage of investigative derived waste (IDW) that was generated from the Geoprobe's sampling activities. The Osolo Township Fire Department agreed to allow storage of the drummed IDW on their property. The drums are being stored at this location until analytical results are received by IDEM staff to determine proper disposal requirements.

Late on the Friday morning, prior to the sampling event, SI staff was informed that the work area building secured by the County Health Department did not meet the electrical needs of the U.S. EPA Mobile Laboratory. At the last hour, SI staff made arrangements with personnel at the City of Elkhart Waste Water Treatment Plant for U.S. EPA's electrical needs. Even though U.S. EPA's mobile laboratory was located approximately seven miles away from the Lane Street site, U.S. EPA laboratory staff provided SI staff with sample results by telephone.

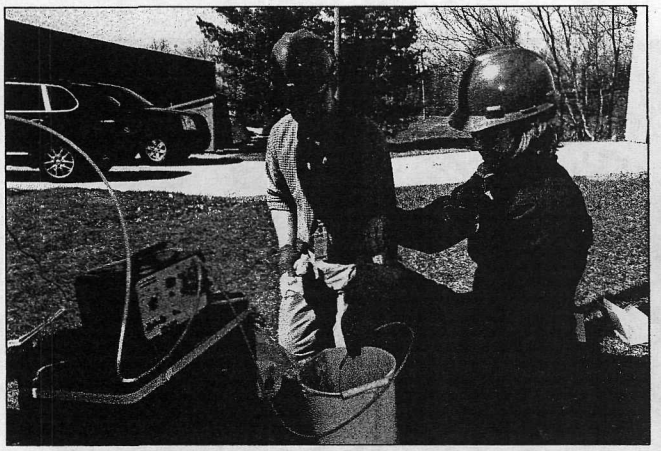
Field Investigation:

IDEM's and U.S. EPA's Geoprobe operators, assistants, and samplers persevered daily to obtain the necessary ground water and soil samples. Both project managers were constantly inundated with numerous requests from field staff, city officials, residents, utility locators, and even attorneys. Project managers insured that everything necessary was provided to all field staff.

Private well samplers worked for 2 ½ days to obtain all the necessary drinking water samples. Many residential drinking water samples were obtained late in the evening when residents were home from work. The samplers continued going back to residences until all samples were collected. After the private well samplers completed their work, the

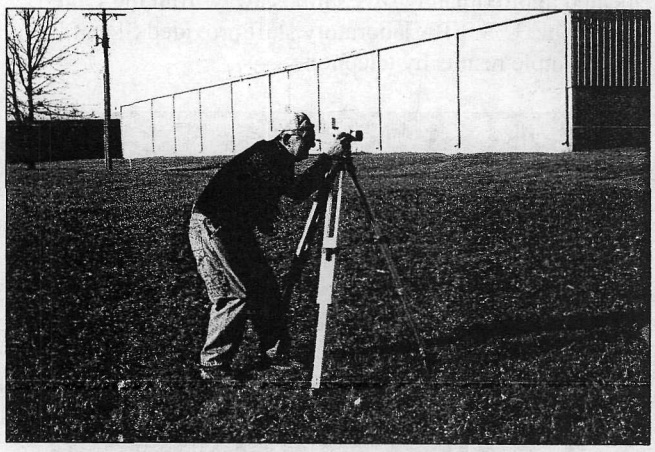


IDEM staff members Steve McIntire and Tom Doreff operate IDEM's Geoprobe.



IDEM staff members Leda Casey and Chris Bonniwell document and collect water samples after IDEM's Geoprobe obtained the desired depth.

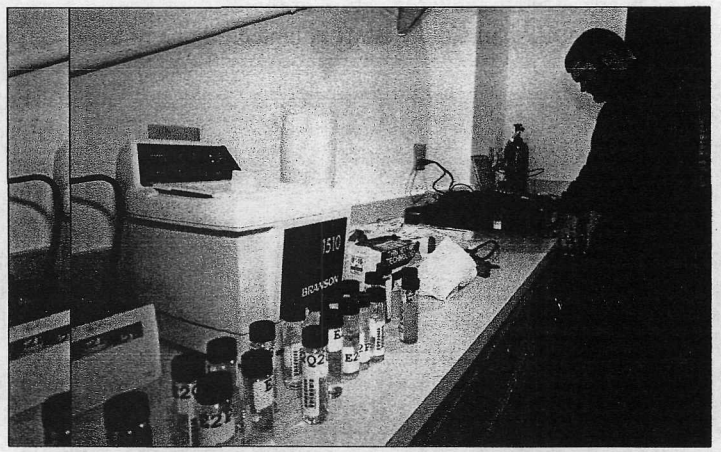
In summary, the investigation involved two Geoprobes, (U.S. EPA's and IDEM's), two onsite mobile labs, (U.S. EPA's and IDEM's), four IDEM FORMS II Lite operators, two Elkhart County representatives, four private well samplers, two IDEM Geoprobe operators, one IDEM chemist, two U.S. EPA-contracted chemists, three U.S. EPA Geoprobe operators, two IDEM Geoprobe samplers, one IDEM chief geologist and three other IDEM geologists, a primary IDEM project manager, and one IDEM secondary project manager. The project required on-site field work of 4 days. Staff worked continuously 12-14 hours per day. Additionally, many staff were involved for days and weeks prior to the actual sampling, and may continue to be involved and contribute to the project in the future months ahead.



IDEM staff member Larry Mansue surveys surface elevations for three piezometers that were installed by IDEM's Geoprobe.

samplers proceeded to assist other staff where needed.

FORMS II Lite is a computer program required by U.S. EPA to be utilized when shipping samples to U.S. EPA's contract laboratories. At times during the investigation, the FORMS II Lite operators were deluged with large numbers of samples and paperwork at the end of the day. The FORMS II Lite operators quickly and accurately entered the necessary information into U.S. EPA's required program and provided the necessary sample preparation for delivery to the U.S. EPA Contract Laboratory under extremely tight deadlines. This allowed the project managers to deliver the samples to the FED EX office in South Bend (35 minutes away) with just minutes to spare before closing.



IDEM staff member Chris Ferguson analyzes water samples utilizing IDEM's mobile lab facility.

Staff obtained 120 ground water samples and eleven soil samples. IDEM staff is currently waiting on U.S. EPA laboratory sample results so that staff can determine the next steps.

The following people and their associated roles listed below were part of this investigation:

IDEM Staff
Mark Jaworski–Primary Project Manager
Ken McDaniel–Secondary Project Manager
Kevin Spindler–Chief Geologist
Leda Casey–Geologist
Chris Bonniwell–Geologist
Robyn Raftis–Geologist
Chris Ferguson–Chemist
Tim Johnson–Private well sampler/Sampler helper/FORMS II Lite helper

Joy Krutek–Private well sampler/Geoprobe sampler/FORMS II Lite helper
Aunna Huber–Private Well sampler/Geoprobe sampler
Bill Giles–Private well sampler
Steve McIntire–IDEM's Geoprobe operator
Kevin Herron–IDEM's Geoprobe assistant
Tom Doreff–IDEM's Geoprobe assistant/sampler helper
Doug Fisher–Lead FORMS II Lite operator
Dan Chesterson–Lead FORMS II Lite operator
Namrata Patel–FORMS II Lite operator / Geoprobe sampler
Sandra Roberts–FORMS II Lite operator
Larry Mansue– IDEM engineer/surveyor

EPA Staff
Steve Peterson–EPA Geoprobe operator
Jim Ursic–EPA Geoprobe assistant
Tom Sedlak–EPA Geoprobe assistant
James Burden–EPA contract chemist

Elkhart County Health Department
John Hulewicz–Procured work station/initiated contact with various residents and facilities
Tara Stills–Private Well sampler/FORMS II Lite helper

City of Elkhart/Waste Water Treatment Plant
Dale Reseer–Procured work area and electricity for EPA Mobile laboratory
Lynn Newvine–Procured disposal of EPA Mobile Laboratory waste

Osolo Township Fire Department
Jerry Miller–Procured storage area for drums of investigative derived waste